



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,406	11/20/2001	Michael Mulligan	552.119US01	3083

7590 11/28/2006

Hollingsworth & Funk, LLC  
Suite 125  
8009 34th Avenue South  
Minneapolis, MN 55425

EXAMINER

KANG, PAUL H

ART UNIT PAPER NUMBER

2144

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/996,406	<b>Applicant(s)</b> MULLIGAN	
	<b>Examiner</b> Paul H. Kang	<b>Art Unit</b> 2144	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Examiner Delgato is no longer assigned to the present patent application. This application is now assigned to Examiner Paul H. Kang. In examining this patent application, full faith and credit has been given to the search and action of the previous examiner. MPEP § 719.05.

***Response to Arguments***

2. Applicants mainly argue that the prior art of record fails to teach the newly added limitations regarding the web services endpoint and web services push gateway including an interface that allows advertisement of a service of the web services endpoint. Applicants cites Corrigan to state “that the node allows service providers to create online descriptions of available services including tariffs and subscription fees. Corrigan teaches that the service providers, not the access node, can create these online descriptions. Corrigan is silent regarding the ability of the web services gateway to advertise the push services of the web services gateway.” See Remarks, page 13, lines 3-9.

Applicants argue limitations which are not essential to the scope of the prior art. The definiteness of the language employed must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Insofar, the claims have been given the broadest reasonable interpretation consistent with the specification and the prior art, since the applicant may then amend his claims, the thought being to reduce the possibility that after a patent is granted the claims may be interpreted as giving broader coverage than is justified. Therefore, applicant’s arguments regarding a distinction of Corrigan wherein the service providers, not the access node nor gateway, creates the online descriptions are not given

Art Unit: 2144

weight as to the patentability of the claimed subject matter.

Regardless of where the advertisements are created, it is clear that both the web services endpoint and gateway comprise "an interface that allow advertisement" by receiving, transmitting, and allowing display of the advertisements. The limitation as claimed is patentably distinct from, for instance, "Web Services endpoint generating an advertisement of a service of the Web Services endpoint."

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-4, 6-7, 10-19 and 22-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,640,097 by Corrigan et al in view of US Patent No. 6,728,215 by Alperovich et al.**

5. In claim 1, Corrigan teaches about a Web Services push gateway "node" for interfacing Web Services push applications and mobile terminals operable with one of a plurality of different mobile push technologies, the Web Services push gateway comprising (Fig 4), (Col 4, lines 9-16):

a Web Services endpoint "content provider" to terminate Web Services protocols utilized by the Web Services push applications in providing push messages, the Web Services endpoint including an interface that allows advertisement of a service of the Web Services

Art Unit: 2144

endpoint (Col 3, lines 45-60, Col. 5, lines 21-30 and Col 10, lines 63-67);

a plurality of mobile push bearers " deliver services -SMS, GPRS, CB etc" each configured to communicate with a different one of the plurality of mobile push technologies (Col 1, lines 59-63) (Col 4, lines 9-16); and

a push router coupled to the Web Services endpoint to receive the push messages, and coupled to the mobile push bearers to forward the push messages to an elected one of the mobile push bearers for ultimate delivery to a recipient mobile terminal employing a mobile push technology corresponding to the elected mobile push bearer (Col 3, lines 45-60) (Col 5, lines 40-45) (Col 11, lines 15-25). This is the function of the node that facilitates the selection of the optimal bearer channel.

But does not explicitly teach about a push adaptation layer coupled to the plurality of mobile push bearers to collect bearer characteristics from each of the mobile push bearers. Corrigan teaches about the need for optimal service within the current limitations of wireless network and devices (Col 1, lines 40-50). Alperovich teaches about a gatekeeper (gatekeeper operates within the adaptation layer) that collects quality of service information "bearer characteristics" from an IP LAN in order to better utilize a wireless network resource base on current loading (Col 3, lines 10-30) (Col 4, lines 35-50).

It would have been obvious at the time of the invention for some one of ordinary skill to improve on Corrigan invention by using the adaptive approach to quality of service of Alperovich invention in order to better utilize network resources base on current loading condition.

Art Unit: 2144

6. In claim 2, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, further comprising a presence agent (API that detect location of mobile user) coupled to the push router to provide the push router with recipient presence information including the recipient mobile terminal's online status and mobile terminal characteristics, wherein the push routers election of the elected one of the mobile push bearers is based at least in part on the recipient presence information (Corrigan Col 7, lines 35-45).

7. In claim 3, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, further comprising a user preference agent (the process of subscribing) coupled to the push router to provide the push router with particular user preferences identified by the user of the recipient mobile terminal; wherein the push routers election of the elected one of the mobile push bearers is based at least in part on the user preferences (Corrigan Col 4, lines 50-60) (Corrigan Col 7, lines 1-5).

8. In claim 4, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, further comprising wherein the push routers election of the elected one of the mobile push bearers is based at least in part on the bearer characteristics (Corrigan Col 7, lines 1-5).

9. In claim 6, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, wherein the Web Services endpoint comprises a transport layer server for terminating the Web Services protocols (Corrigan Col 3, lines 45-65).

10. In claim 7, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 6, wherein the transport layer server is an HTTP server (Corrigan Col 3, lines 45-65).

11. In claim 10, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, wherein the interface comprises a registry interface to interface with a service registry to advertise a push service of the Web Services endpoint (Corrigan Col 5, lines 20-25).

12. In claim 11, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, further comprising a presence agent coupled to the push router to provide the push router with recipient presence information including the recipient mobile terminal's online status and mobile terminal characteristics (Corrigan Col 11, lines 35-45).

13. In claim 12, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, further comprising a user preference agent coupled to the push router to provide the push router with particular user preferences identified by the user of the recipient mobile terminal (Corrigan Col 4, lines 50-60) (Corrigan Col 7, lines 1-15).

14. In claim 13, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 12, wherein the user preferences agent comprises a preference repository to

Art Unit: 2144

store the user preferences for each potential push message recipient (Corrigan Col 2, lines 10-15) (Corrigan Col 4, lines 50-60).

15. In claim 14, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 12, further comprising a user preference interface coupled to the user preference agent to allow the user of the recipient mobile terminal to enter and/or modify the user preferences (Corrigan Col 1, lines 10-15) (Corrigan Col 4, lines 50-60).

16. In claim 15, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 14, wherein the user preference interface is an HTTP server in which the user of the recipient mobile terminal accesses via a web browser (Corrigan Col 3, line 65- Col 4, line 5) (Corrigan Col 4, lines 53-59).

17. In claim 16, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, further comprising a push adaptation layer coupled to the plurality of mobile push bearers to collect bearer information from each of the mobile push bearers, and coupled to the push router to receive and direct the push messages to the elected one of the mobile push bearers for ultimate delivery to the recipient mobile terminal (Corrigan Col 5, lines 55-65) (Corrigan Col 7, lines 1-5).

18. In claim 17, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, wherein at least one of the mobile push bearers is a Short Message



Art Unit: 2144

Service (SMS) bearer for connecting to a Short Message Service Center (SMSC) (Corrigan Col 4, lines 9-16).

19. In claim 18, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, wherein at least one of the mobile push bearers is a Wireless Application Protocol (WAP) Push bearer for connecting to a WAP Push Proxy Gateway (PPG) using the WAP Push Access Protocol (PAP) (Corrigan Col 11, lines 1-5) (Corrigan Col. 11, lines 15-25).

20. In claim 19, Corrigan combined with Alperovich, teaches about a Web Services push gateway as in Claim 1, wherein at least one of the mobile push bearers is a Wireless Application Protocol (WAP) Push bearer for connecting to the recipient's mobile terminal via the WAP Push Over-the-Air (POTA) protocol (Corrigan Col 11, lines 15-25).

21. In claim 22, Corrigan combined with Alperovich, teaches about a network system for communicating push messages, comprising (Fig 2):

one or more mobile terminals capable of receiving push messages via one of a plurality of mobile push technologies "SMS, GPRS, CB etc" (Corrigan Col 4, lines 9-16) (Corrigan Col 10, lines 63-67);

one or more Web Services applications "content providers" capable of providing the push messages via Web Services protocols (Corrigan Col 3, lines 45-60) (Corrigan Col 10, lines 63-67); and

a Web Services push gateway for interfacing the push messages provided by the Web

Art Unit: 2144

Services applications to any of the plurality of mobile push technologies the Web Services push gateway configured to collect bearer characteristics from each of a plurality of mobile push bearers respectively associated with the plurality of mobile push technologies, the Web Services push gateway including an interface that allows advertisement of a service of the Web Services push gateway (Corrigan Col 4, lines 9-16, col. 5, lines 21-30) (Corrigan Col 10, lines 63-67) (Covered in claim I).

22. In claim 23, Corrigan combined with Alperovich, teaches about a network system as in Claim 22, wherein the Web Services push gateway comprises:

a first interface to receive the push messages via the Web Services protocols from the Web Services applications (Corrigan Col 3, line 65- Col 4, line 5);

a plurality of different push bearers, each capable of transmitting the push messages to a recipient mobile terminal via a respective mobile push technology (Corrigan Col 4, lines 9-16);  
and

a push message router coupled to receive the push messages from the first interface, to process bearer criteria and designate one of the mobile push bearers for transmitting the push messages in response thereto, and to route the push messages to the designated mobile push bearer for ultimate transmission to the recipient mobile terminal using the respective mobile push technology (Corrigan Col 3, lines 45-60) (Corrigan Col 5, lines 40-45) (Corrigan Col 11, lines 15-25).

23. In claim 24, Corrigan combined with Alperovich, teaches about a method of facilitating

Art Unit: 2144

the transmission of push messages to mobile terminals which collectively implement a plurality of different mobile push technologies, the method comprising (Corrigan Col 4, lines 9-16) (Corrigan Col 10, lines 63-67):

providing a first gateway interface to a Web Services domain, wherein the Web Services domain comprises at least one Web Service push application that transmits at least one push message (Corrigan Col 3, line 65- Col 4, line 5);

providing a second gateway interface to a mobile push technologies domain, wherein the mobile push technologies domain comprises one or more mobile terminals each operable with at least one of the mobile push technologies; advertising a push service that provides transmission of the push messages to the mobile terminals which collectively implement the plurality of different mobile push technologies (Corrigan Col 4, lines 9-16 and col. 5, lines 21-30) (Fig 4, "mobile network domain" );

collecting bearer characteristics from a plurality of mobile push bearers associated with the plurality of mobile push technologies;

routing the push message received at the first gateway interface to an elected one of the plurality of mobile push bearers (Corrigan Col 5, lines 40-45); and

transmitting the push message from the elected mobile push bearer to a recipient mobile terminal via the second gateway interface, wherein the push message is transmitted utilizing the mobile push technology provided by the elected mobile push bearer (Corrigan Col 5, lines 40-45) (Corrigan Col 7, lines 1-5).

24. In claim 25, Corrigan combined with Alperovich, teaches about a method of Claim 24,

Art Unit: 2144

further comprising converting the push message received at the first gateway interface from a Web Service protocol to a mobile push protocol associated with the elected mobile push bearer (Corrigan Col 2, lines 1-10).

25. In claim 26, Corrigan combined with Alperovich, teaches about a method of Claim 24, further comprising processing bearer election criteria to identify the mobile push bearer to be elected to transmit the push message via the send gateway interface (Corrigan Col 5, lines 40-45).

26. In claim 27, Corrigan combined with Alperovich, teaches about a method of Claim 26, wherein processing bearer election criteria comprises processing recipient presence information including the recipient mobile terminal's online status and mobile terminal characteristics (Corrigan Col 7, lines 35-45).

27. In claim 28, Corrigan combined with Alperovich, teaches about a method of Claim 26, wherein processing bearer election criteria comprises processing user preferences identified by the user of the recipient mobile terminal (Corrigan Col 7, lines 1-5).

28. In claim 29, Corrigan combined with Alperovich, teaches about a method of Claim 26, wherein processing bearer election criteria comprises processing bearer characteristics from each of the mobile push bearers (Corrigan Col 5, lines 40-45) (Corrigan Col 7, lines 1-5).

Art Unit: 2144

29. In claim 30, Corrigan combined with Alperovich, teaches about a method of Claim 29, wherein the bearer characteristics comprise one or more of bearer bandwidth, content capability, bearer availability, bearer latency, delivery assurance, and quality of service (Corrigan Col 5, lines 40-45) (Corrigan Col 6, lines 1-55). The advantages and disadvantages of each bearer are evaluated to provide the optimal bearer channel.

30. In claim 31, Corrigan combined with Alperovich, teaches about a method of Claim 24, further comprising parsing the push message at the first gateway interface (Corrigan Col 5, lines 40-45) (Corrigan Col 14, lines 55-61). This process is active during the selection process that determines the optimal bearer channel.

31. In claim 32, Corrigan combined with Alperovich, teaches about a method of Claim 24, further comprising processing message transmission parameters "type of application, terminal type and tariff" to identify transmission guidelines for transmitting the push message from the elected mobile push bearer (Corrigan Col 7, lines 1-5).

32. In claim 33, Corrigan combined with Alperovich, teaches about a method of Claim 32, further comprising buffering the push message prior to transmitting the push message from the elected mobile push bearer, when processing the message transmission parameters reveals postponement of the push message transmission (Corrigan Col 2, lines 1-10) (Corrigan Col 10, lines 63-67). The process of converting information from an internet interface to a mobile interface requires overhead processing, which incur some amount of delay. To ensure that the relayed message to the mobile user is in sync with the source, there has to be a buffering element

Art Unit: 2144

to compensate for this delay.

33. In claim 34, Corrigan combined with Alperovich, teaches about a method of Claim 24, further comprising providing a delivery report to the Web Service push application that initiated the push message, after the push message has been transmitted to the recipient mobile terminal (Corrigan Col 11, lines 10-15).

34. In claim 35, Corrigan combined with Alperovich, teaches about a method of facilitating the transmission of push messages to mobile terminals utilizing a plurality of different mobile push technologies "SMS, GPRS, CB", the method comprising (Fig 4):

advertising a push service that provides transmission of the push messages to the mobile terminals which collectively implement the plurality of different mobile push technologies; receiving the push messages from Web Services applications via Web Services protocols (Corrigan Col 10, lines 63-67 and col. 5, lines 21-30);

obtaining presence information relating to the availability and type of recipient mobile terminal (Corrigan Col 7, lines 35-45);

obtaining user preference information relating to particular user preferences identified by the user of the recipient mobile terminal (Corrigan Col 4, lines 50-60);

obtaining bearer availability and capabilities information from each of a plurality of different mobile push bearers each capable of communicating with the mobile terminals using a different mobile push technology (Corrigan Col 5, lines 40-45) (Corrigan Col 7, lines 1-5) (Covered in claim 1);

selecting a mobile push bearer to transmit the push message to the recipient mobile terminal based on one or more of the presence information, user preference information, and bearer availability and capabilities information (Corrigan Col 5, lines 40-45) (Corrigan Col 7, lines 1-5) (Corrigan Col 7, lines 35-45); and

delivering the push message from the selected mobile push bearer to the recipient mobile terminal "subscriber" using the mobile push technology provided by the selected mobile push bearer (Corrigan Col 5, lines 40-45) (Corrigan Col 11, lines 1-5).

35. In claim 36, Corrigan combined with Alperovich, teaches about a method of Claim 35, wherein selecting a mobile push bearer comprises determining a closest match of the bearer availability and capabilities information with one or more of the presence information and the user preference information (Corrigan Col 5, lines 40-45) (Corrigan Col 7, lines 1-5) (Corrigan Col 7, lines 35-45).

36. In claim 37, Corrigan combined with Alperovich, teaches about a method of Claim 35, wherein selecting a mobile push bearer comprises determining a weighted match (evaluation) of the bearer availability and capabilities information with one or more of the presence information and the user preference information (Corrigan Col 4, lines 20-30) (Corrigan Col 5, lines 40-45) (Corrigan Col 7, lines 1-5). There has to be some type of evaluation process in order to present an optimal solution.

37. In claim 38, Corrigan combined with Alperovich, teaches about a method of Claim 37,

Art Unit: 2144

further comprising providing feedback regarding the quality of the selection of the mobile push bearer (Corrigan Col 11, lines 10-15).

38. In claim 39, Corrigan combined with Alperovich, teaches about a method of Claim 35, wherein obtaining presence information comprises querying for information indicative of whether the recipient mobile terminal is currently online (Corrigan Col 7, lines 35-45).

39. In claim 40, Corrigan combined with Alperovich, teaches about a method of Claim 35, wherein obtaining presence information comprises querying for terminal type characteristics of the recipient mobile terminal (Corrigan Col 7, lines 35-45) (Corrigan Col 11, lines 5-10).

40. In claim 41, Corrigan combined with Alperovich, teaches about a method of Claim 35, wherein obtaining user preference information comprises querying for terminal preferences indicative of a range of mobile terminals available as the recipient mobile terminal (Corrigan Col 7, lines 35-45).

41. In claim 42, Corrigan combined with Alperovich, teaches about a method of Claim 41, wherein querying for terminal preference information further comprises querying for content types for each of the mobile terminals available as the recipient mobile terminal (Corrigan Col 11, lines 5-10). The query for the content type is covered under the device capabilities query.

42. In claim 43, Corrigan combined with Alperovich, teaches about a method of Claim 35, wherein obtaining user preference information comprises querying for network preferences indicative of type of network the user is currently operating within (Corrigan Col 5, lines 10-



Art Unit: 2144

20) (Corrigan Col 7, lines 1-5) (Corrigan Col 7, lines 35-45).

43. In claim 44, Corrigan combined with Alperovich, teaches about a method of Claim 35, wherein obtaining user preference information comprises querying for presence preferences indicative of user activities at any given time (Corrigan Col 7, lines 35-45). The GPS signal provides user activities as to user movement at any given time.

44. In claim 45, Corrigan combined with Alperovich, teaches about a network system for facilitating the transmission of push messages to mobile terminals which collectively implement a plurality of different mobile push technologies, the network system comprising (Fig 4) (Corrigan Col 4, lines 9-16):

first interface means for interfacing to a Web Services domain, wherein the Web Services domain comprises at least one Web Service push application that transmits at least one push message (Corrigan Col 3, line 65- Col 4, line 5);

second interface means for interfacing to a mobile push technologies domain, wherein the mobile push technologies domain comprises one or more mobile terminals each operable with at least one of the mobile push technologies (Corrigan Col 4, lines 9-16) (Fig 4, "mobile network domain" );

a third interface that allows advertisement of a service provided by the first and second interfaces (Corrigan, col. 5, lines 21-30);

means collecting bearer characteristics from a plurality of mobile push bearers associated with the plurality of mobile push technologies (Covered in claim 1);

Art Unit: 2144

means for routing the push message received via the first gateway interface means to an elected one of a plurality of mobile push bearers (Corrigan Col 5, lines 40-45); and

means for transmitting the push message from the elected mobile push bearer to a recipient mobile terminal via the second interface means, wherein the push message is transmitted utilizing the mobile push technology provided by the elected mobile push bearer (Corrigan Col 5, lines 40-45) (Corrigan Col 7, lines 1-5).

45. In claim 46, Corrigan combined with Alperovich, teaches about a computer-readable medium having computer-executable instructions for facilitating the transmission of push messages to mobile terminals utilizing a plurality of different mobile push technologies, the computer-executable instructions performing steps comprising (Fig 4) (Corrigan Col 4, lines 9-16):

receiving the push messages from Web Services applications via Web Services protocols (Corrigan Col 10, lines 63-67);

advertising a push service that provides transmission of the push messages to the mobile terminals which collectively implement the plurality of different mobile push technologies; collecting one or more of presence information relating to the availability and type of recipient mobile terminal, user preference information relating to particular user preferences identified by the user of the recipient mobile terminal, and bearer availability and capabilities information from each of a plurality of different mobile push bearers each capable of communicating with the mobile terminals using a different mobile push technology (Corrigan Col 5, lines 10-20) (Corrigan Col 5, lines 21-30 and 40-45) (Corrigan Col 7, lines 1-5)

Art Unit: 2144

(Corrigan Col 7, lines 35-45) (Covered in claim 1);

selecting a mobile push bearer to transmit the push message to the recipient mobile terminal based one or more of the presence information, user preference information, and bearer availability and capabilities information (Corrigan Col 5, lines 40-45); and

delivering the push message from the selected mobile push bearer to the recipient mobile terminal using the mobile push technology provided by the selected mobile push bearer (Corrigan Col 5, lines 40-45).

**46. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,640,097 by Corrigan et al and US Patent No. 6,728,215 by Alperovich et al in view of US Patent Application No. 2001/0019951 by Haumount.**

47. In claim 5, Corrigan combined with Alperovich, teaches all the limitation as to pushing a message to a recipient but does not explicit teach about using a storage buffer in the situation where the message cannot be delivered. Corrigan teaches about the need for service to be accessible to mobile user (Col 1, lines 35-40). Haumount disclosed a store and forward services in which messages that cannot be immediately delivered, because of the user present position being out of range, are placed in queue (buffer) until it is possible to deliver it (Page 3, Paragraph 45).

In mobile communication like the one taught by Corrigan, it is a common problem for a user of a mobile terminal going out of the signaling range. Whenever this occurs, the message is undeliverable. Haumount teaches an improve way to handle an out of range condition by

Art Unit: 2144

queuing (buffering) the message until it is possible to deliver it.

It would have been obvious at the time of the invention for some one of ordinary skill to buffer a message in order to increase the chance that it will be delivered.

**48. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,640,097 by Corrigan et al in view of US Patent Application No. 2002/0156831 by Suorsa et al.**

49. In claims 8 and 9 Corrigan combined with Alperovich, teaches all the limitation but does not explicitly teach about using a XML message engine that comprises a Simple Object Access Protocol (SOAP) engine.

Suorsa taught about using the Simple Object Access Protocol (SOAP) (SOAP is XML based) within a gateway as means for an agent to access a remote database (Page' 6, Paragraph 52).

In Corrigan invention it was disclosed that there was a need to be able to migrate to more complex and advance technology like the third generation technology (Col 1, lines 63-67). In using SOAP, Suorsa was able to capitalize on the simplicity in the design of an agent, which makes Remote Procedure Call (RPC) to a database using XML (Page 6, Paragraph 52, and lines 14-27). The RPC provide a simply way of activating process on remote nodes and retrieving results. The XML is well known for its portability, which makes it very suitable for upgrade. The combined advantage of RPC and XML is realized when using SOAP.

It would have been obvious to some one of ordinary skill at the time of the invention to

Art Unit: 2144

use a SOAP engine so that the migration process to a third generation will be less complex and portable.

**50. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,640,097 by Corrigan et al in view of US Patent Application No. 2003/0190887 by Hook et al.**

51. In claim 20 Corrigan combined with Alperovich, teaches all the limitation but does not explicitly teach about using a push bear that is a Multimedia Messaging Service (MMS) bearer.

Hook teaches about a multimedia message service center in which multimedia message is transferred between wireless terminals. In Corrigan invention it was disclosed that there was a need to be able to migrate to more complex and advance technology like the third generation technology (Col 1, lines 63-67). Third generation technology as disclosed by applicant at page 2, lines 15-20 will have a greater need to support multimedia service.

It would have been obvious at the time of the invention for some one of ordinary skill to use a Multimedia Messaging Service (MMS) bearer in order to meet the demand of a third generation technology network.

**52. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,640,097 by Corrigan et al and US Patent No. 6,728,215 by Alperovich et al in view of US Patent Application No. 2003/0050051 by Vilander.**

53. In claim 21 Corrigan combined with Alperovich, teaches all the limitation but does not explicitly teach about using a push bear that is a Session Initiation Protocol (SIP) bearer

Vilander teaches about using SIP as a means to setup a session between a calling party and a mobile wireless subscriber (Page 2, Paragraph 12) (Page 2, Paragraph 14).

In Corrigan invention, a push wireless-web service , which supports an "always on line" capability requires an assignment of an IP address during session setup (Col 6, lines 35-45). There is a limit to the number of IP address that can be available at any time, which limit the number of online users. Vilander disclosed an improved way to handle the IP address shortage by using Session Initiation Protocol (Page I, Paragraph 11). (Page 2, Paragraph 14).

It would have been obvious for some one of ordinary skill at the time of the invention to use Session Initiation Protocol in order to support more mobile user at any given time.

### ***Conclusion***

54. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of-time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2144

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

55. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul H. Kang whose telephone number is (571) 272-3882. The examiner can normally be reached on 9 hour flex. First Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
PAUL H. KANG  
PRIMARY PATENT EXAMINER